

ABSTRACT

A modular reference electrode assembly having a constrained-diffusion liquid junction between a liquid junction solution and a sample solution having separate flow paths, said assembly comprising a flow cell having attached thereto a constraint comprising a region of porous material permeable to water and salts; a remote reservoir for holding said liquid junction solution; a means for moving said liquid junction solution from said reservoir to said constraint; and a reference contact region is provided. This unique configuration provides a reference electrode device of the constrained-diffusion liquid junction type useful in pH and/or ion-selective electrode (ISE) potentiometric sensors and is particularly suitable for use in a mini-integrated electrochemical analyzer.

304612